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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,049	12/04/2003	Richard M. Ehrlich	PANAP-1123US2	8938

23910 7590 08/23/2005

FLIESLER MEYER, LLP
FOUR EMBARCADERO CENTER
SUITE 400
SAN FRANCISCO, CA 94111

EXAMINER	
TZENG, FRED	

ART UNIT	PAPER NUMBER
2651	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/728,049	EHRLICH, RICHARD M.	
	Examiner	Art Unit	
	Fred Tzeng	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/04/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☒ Claim(s) *8 and 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-9 are presented for examination.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The missing copending application serial numbers need to be updated.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Limitation WORF is not described or supported by the instant application specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson (USPN 6,442,715).

RE claim 1, Wilson discloses a hard disk device **(see column 12 lines 10-11 or figure 2A; i.e., the disk drive 100)**, comprising: a rotatable medium having a plurality of data zones, the rotatable medium capable of storing information written to any of the plurality of data zones **(see column 12 lines 40-45 and column 13 lines 33-42 or figure 2A; i.e., the disk 10a has surface 13a which comprising of a plurality of data zones)**; a write element capable of writing information to any of the data zones of the rotatable medium **(see column 12 lines 51-53 or figure 2A; i.e., the write head 130 capable of writing information to the data zones on disk surface 13b)**; an actuator coupled to the write element, the actuator adapted to move in a radial direction over the rotatable medium to allow the write element to write information to the rotatable medium **(see column 12 lines 37-41 or figure 2A; i.e., the VCM is the actuator to move the write head 130 which coupled to the actuator arm 126 in a radial direction over disk surface 13b for data writing)**; a control mechanism adapted to control the rotatable medium and the position of the actuator **(see column 12 lines 45-50 and figure 2A; i.e., the VCM/Spin**

controller 124 is the control mechanism adapted to control the rotatable disk 10a and the position of the actuator arm 126); and a critical data reallocation circuitry configured to identify a plurality of critical sectors containing critical data, identify the order in which the critical data may be requested, and initiate reallocation of the critical sectors into sequential order on the rotatable medium, the sequential order corresponding to the order the critical data may be requested **(see column 10 lines 35-38, 44-54 and column 13 lines 16-19; i.e., the look-ahead reallocation circuitry configured to identify a plurality of critical data sectors affected by the servo defect and the order of the sectors may be requested, and then triggering/initiating the look-ahead reallocation of the critical sectors into sequential order corresponding to the order the critical data may be requested on the disks 10a or 10b as a batch reallocation)**.

RE claim 2, Wilson discloses that the critical data reallocation circuitry is a processor **(see column 12 lines 19-22 or figure 2A; i.e., the microprocessor 102 provides the highest level of control and coordination for all disk device activities which includes the critical data reallocation)**.

RE claim 5, Wilson discloses that the critical sectors are reallocated into sequential order on sectors residing on every other track of the rotatable medium **(see column 10 lines 35-67 and column 13 lines 16-19 and figures 1C, 2B, 2C; i.e., the group of critical sectors are reallocated together into its original sequential order to spare sectors on every other track of the disks 10a or 10b by a batch reallocation)**.

RE claims 6 and 7, Wilson discloses that the critical sectors are reallocated into sequential order on sectors of the rotatable medium having an extended inter-sector distance between them **(see column 10 lines 35-67 and column 13 lines 16-19 and figure 1B and column 6 lines 48-50; i.e., the group of critical sectors are reallocated together into its original sequential order in the form of a batch reallocation on the disks 10a or 10b which having an extended inter-sector distance between them, such as the split data sector 26 or 32 in figure 1B having inter-sector distance 16 or 18 respectively)**.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (USPN 6,442,715) in view of the present application admitted prior art on pages 11-12 section [0032] (including Szita et al USPN 6,631,046).

RE claim 3, Wilson discloses the invention substantially as claimed. Wilson discloses that the critical sectors are reallocated into sequential order on sectors of a rotatable medium **(see column 10 lines 35-67 and column 13 lines 16-19; i.e., the group of critical sectors are reallocated together into its**

original sequential order in the form of a batch reallocation on the disks 10a or 10b).

However, Wilson does not specifically disclose that the critical sectors are reallocated into sequential order on sectors of the rotatable medium having a smaller than the typically accepted RRO.

The present application admitted prior art teaches that the smaller than typically accepted RRO could be achieved through more careful servowriting or extensive use of RRO-reduction techniques on final wedges, which processes are generally known in the art and invention in United States Patent number Szita et al 6,631,046 specifically discloses that the technique for achieving small than typically accepted RRO can be used to eliminate many of the mechanical errors that affect the accuracy of prior art self-servo writing in order to keep the read head better aligned (see column 6 lines 47-49, 57-61). It would have been in the interest of a disk drive manufacturer to have a rotatable medium having a smaller than the typically accepted RRO in order to keep the read head better aligned.

Wilson and the present application admitted prior art are combinable because they are from the same field of endeavor. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Wilson invention by providing it with a rotatable medium having a smaller than the typically accepted RRO for its look-ahead reallocation in order to keep the read head better aligned after its critical sectors reallocation as expressly stated at column 6 lines 47-49, 57-61 of Szita et al invention.

Allowable Subject Matter

10. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

Claims 8 and 9 are allowable over the prior art of record because none of the prior art of record teaches or fairly suggests a system or method for implementing a reallocation of critical sectors into sequential orders at a writing speed that is slower than its optimal.

Conclusion

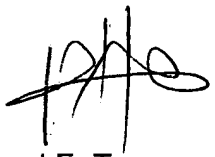
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication from the examiner should be directed to Fred Tzeng whose telephone number is 571-272-7565. The examiner can normally be reached on weekdays from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8400 for regular communications and 571-273-7565 for After Final communications.

14. Informal regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

15.



Fred F. Tzeng

August 17, 2005